Claims

1. Device for detecting an object or person (2), in particular in the interior of a motor vehicle (1), with

- at least one illumination unit (3) which emits light pulses (4) for the purpose of illuminating an image field (5) which is to be captured; and with
- an image capture unit (6) which incorporates at least one image sensor (7), which takes in the reflected light pulses from an object or a person (2) in the image field (5), and captures the image data for the object or person (2);

whereby

- at least one illumination unit (3) is arranged in or on the motor vehicle (1) in a spatially separate position from the image capture unit (6);

characterized in that

of the separately arranged illumination unit (3) and image capture unit (6)

- the one unit (6 or 3, as appropriate) incorporates an optical transmitter (8), which emits control light pulses (10) for the purpose of synchronizing or controlling, as applicable, the units (3; 6), and
- the other unit (3 or 6, as appropriate) incorporates an optical receiver (9), which receives the control light pulses (10).

2. Device in accordance with Claim 1, characterized in that between the optical transmitter (8) and the optical receiver (9) there is a fiber optic cable (11) for the transmission of the control light pulses.

3. Device in accordance with Claim 1 or 2, characterized in that transmission facilities are provided at the optical transmitter (8) and the optical receiver (9), for the cordless transmission of control light pulses (10).

4. Device in accordance with one of the preceding Claims, characterized in that the optical transmitter (8) is a component of the image capture unit (6).

5. Device in accordance with one of the preceding Claims, characterized in that the control light pulses (10) are transmitted in modulated and/or encoded form.

6. Device in accordance with one of the preceding Claims, characterized in that control light pulses (10) are used which have a wavelength lying in the near infra-red range (IR).

7. Device in accordance with one of the preceding Claims, characterized in that the illumination unit (3) is aligned towards the person or the object (2) and, relative to the image capture unit (6), is arranged at an angle of $\alpha$ which is preferably from 0° to 45° and/or from 135° to 180°.

8. Device in accordance with one of the preceding Claims, characterized in that the power supply for the illumination unit (3) is independent of that for the image capture unit (6).

9. Method for capturing an object or a person (2), in particular in the interior of a motor vehicle (1), making use of

- at least one illumination unit (3) which emits light pulses (4) for the purpose of illuminating an image field (5) which is to be captured; and making use of
- an image capture unit (6) which incorporates at least one image sensor (7), which takes in reflected light pulses from
an object or a person (2) in the image field (5) and captures the image data for the object or person (2);

whereby

- at least one illumination unit (3) and image capture unit (6) are arranged to be spatially separated from each other in or on the motor vehicle (1),

characterized in that

of the separately arranged illumination unit (3) and image capture unit (6)

- the one unit (6 or 3, as appropriate) emits control light pulses (10) from an optical transmitter (8), for the purpose of synchronizing or controlling, as applicable, the units (3; 6), and
- the other unit (3 or 6, as appropriate) receives the control light pulses (10) through an optical receiver (9).

10. Method in accordance with Claim 9, by which the control light pulses are transmitted over a fiber optic cable (11) arranged between the optical transmitter (8) and the optical receiver (9).

11. Method in accordance with Claim 9 or 10, by which the control light pulses (10) are transmitted cordlessly.

12. Method in accordance with one of Claims 9 to 11, by which the control light pulses (10) are transmitted in modulated or encoded form.

13. Method in accordance with one of Claims 9 to 12, by which the wavelength of the control light pulses (10) lies in the near infra-red range (IR).

14. Method in accordance with one of Claims 9 to 13, by which any time offset is compensated by the transmission of the control light pulses (10) at an earlier point in time.